

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A position sensor assembly adapted to mount externally to a linkage system having first and second link members, the position sensor assembly comprising:

a modular housing member having a sensor module disposed therein;

a first sensor housing member connected to the modular housing member and adapted for external connection to one of the first and second link members of the linkage system ~~and~~, the first sensor housing member having a first sensor conduit therein;

a second sensor housing member slidably received within the first sensor housing member and having a second sensor conduit therein, the second sensor housing member being connected to the other one of the first and second link members;

a first sensor portion connected with the sensor module and the first sensor housing member and guidably disposed in the second sensor conduit; and

a second sensor portion connected with the second sensor housing member and guidably disposed in the first sensor conduit;

wherein:

the first sensor housing member is configured and arranged to at least partially enclose the first sensor portion and the second sensor portion; and

the position sensor assembly is operable to register a position of the first ~~sensor portion~~ link member relative to the second ~~sensor portion~~ link member as a result of ~~cooperation~~ the interaction between the first and second sensor portions.

2. (canceled)

3. (original) The position sensor assembly of claim 1, wherein:

the first and second sensor housing members comprise first and second tubes, respectively, the second tube being telescopically received within the first tube.

4. (original) The position sensor assembly of claim 3, wherein the first and second tubes have generally circular cross-sectional shapes.

5. (currently amended) The position sensor assembly of claim 1, wherein:

the first sensor portion is disposed generally parallel to or coaxially with the second sensor conduit ~~and is configured and arranged to be movable within the second sensor conduit during operation of the position sensor assembly.~~

6. (canceled)

7. (original) The position sensor assembly of claim 1, further comprising a wiper element attached to the first sensor housing member.

8-17. (canceled)

18. (withdrawn) A linkage and sensor system comprising:  
a first linkage member;  
a second linkage member movably connected to the first linkage member; and  
a self-aligning position sensor assembly connected with the first and second linkage members, the position sensor assembly comprising  
a first sensor portion operatively connected to the first linkage member;  
a second sensor portion operatively connected to the second linkage member;  
a sensor housing member at least partially enclosing at least one of the first and second sensor portions; and  
at least one self-aligning mounting member connecting the sensor housing member externally to the first linkage member;  
wherein:

the at least one self-aligning mounting member is operable to align the sensor housing member in a predetermined orientation relative to the first linkage member during assembly of the sensor housing member with the first linkage member; and

the position sensor assembly is operative to register a position of the first linkage member relative to the second linkage member as a result of cooperation between the first and second sensor portions.

19. (withdrawn) The linkage and sensor system of claim 18, wherein the at least one self-aligning mounting member has a contoured mounting surface configured for alignment with an external portion of the first linkage member.

20. (withdrawn) The linkage and sensor system of claim 18, wherein the at least one self-aligning mounting member is operable to align the sensor housing member in a generally parallel and spaced apart relationship relative to the first linkage member.

21. (withdrawn) The linkage and sensor system of claim 18, further comprising a sensor member operably connected between the second sensor portion and the second linkage member and telescopically received within the sensor housing member.

22. (withdrawn) The linkage and sensor system of claim 18, wherein:  
the first linkage member has a cylindrical portion; and  
the contoured mounting surface of the at least one self-aligning mounting member has a curved portion that generally conforms to the outer surface of the cylindrical portion.

23. (withdrawn) The linkage and sensor system of claim 18, wherein the position sensor assembly comprises at least two spaced apart self-aligning mounting members.

24. (currently amended) A method of determining the position of a first linkage member relative to a second linkage member, the method comprising:

adapting the first linkage member with a first sensor portion at least partially enclosed by a first sensor housing member, wherein the first sensor portion and the first sensor housing member are externally disposed relative to the first and second linkage members;

adapting the second linkage member with a second sensor portion that is connected to a second sensor housing member and that is at least partially enclosed by and guidably received in the first sensor housing member, ~~wherein~~ and the first sensor portion is at least partially enclosed by and guidably received in the second sensor housing member, the second sensor portion and the second sensor housing member are externally disposed relative to the first and second linkage members; and

moving the first linkage member relative to the second linkage member;

~~causing the first sensor housing member to enclosingly and slidably receive the second sensor housing member, wherein the first sensor portion is in a telescopically movable relationship relative to the second sensor portion; and~~

~~causing~~ causes the position sensor assembly to register a position of the first linkage member relative to the second linkage member as a result of ~~cooperation~~ interaction between the first and second sensor portions.